

Technical data sheet

NP Nail Plate

SIMPSON**Strong-Tie**

Nail plates are used to connect two or more timber members together. They are available in a variety of sizes.

Features

Material

- Pre-galvanised mild steel. Grade S250GD

Benefits

- Versatility of applications
- Can be bent on site

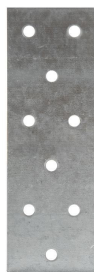
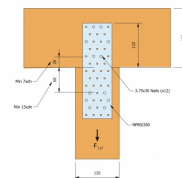
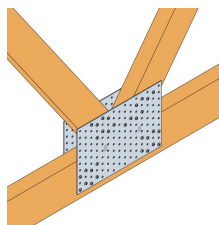
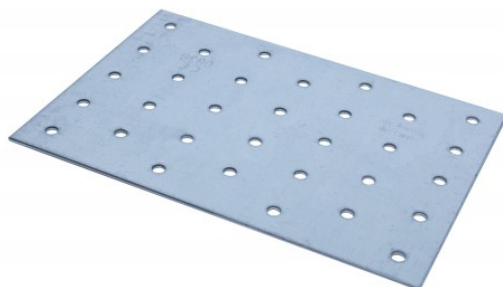
Applications

Header member

- **Supporting member:** solid wood, glued-laminated wood, composite lumber, etc.
- **Supported member:** solid wood, glued-laminated wood, composite lumber, triangular trusses, profiles.

Applications

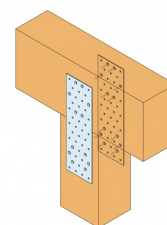
- Post/beam connection
- Jointing
- Repairs
- Assemblies requiring a special bending on site, etc

CE**Z275**

NP



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NP
Nail Plate

Technical Data

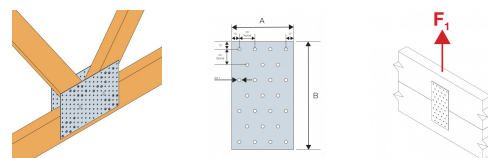
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Dimensions and characteristic values



| References | NOB nr. | Tun / DB nr. | Dimensions and drill holes [mm] | | | Holes | | Characteristic Capacities [kN] |
|--------------|----------|--------------|---------------------------------|-----|-----------|-------|----------|--|
| | | | A | B | Thickness | Qty | Diameter | $R_{1,k}$ |
| NP15/40/120 | 41711615 | 1267914 | 40 | 120 | 1.5 | 9 | Ø5 | min (n x R _{lat,k} ; 13.4/kmod) |
| NP15/40/160 | 41711626 | 1267920 | 40 | 160 | 1.5 | 12 | Ø5 | min (n x R _{lat,k} ; 13.4/kmod) |
| NP15/40/360 | 21217591 | 5653456 | 40 | 360 | 1.5 | 27 | Ø5 | min (n x R _{lat,k} ; 13.4/kmod) |
| NP15/50/200 | 41711634 | 1267926 | 50 | 200 | 1.5 | 20 | Ø5 | min (n x R _{lat,k} ; 17.8/kmod) |
| NP15/60/140 | 21218037 | 3779279 | 60 | 140 | 1.5 | 18 | Ø5 | min (n x R _{lat,k} ; 20/kmod) |
| NP15/60/160 | 21217617 | 5653464 | 60 | 160 | 1.5 | 20 | Ø5 | min (n x R _{lat,k} ; 20/kmod) |
| NP15/60/180 | 21218045 | 3779287 | 60 | 180 | 1.5 | 23 | Ø5 | min (n x R _{lat,k} ; 20/kmod) |
| NP15/60/200 | 21217658 | 5653498 | 60 | 200 | 1.5 | 25 | Ø5 | min (n x R _{lat,k} ; 20/kmod) |
| NP15/60/220 | 21217625 | 5653472 | 60 | 220 | 1.5 | 28 | Ø5 | min (n x R _{lat,k} ; 20/kmod) |
| NP15/60/240 | 41863666 | 1280559 | 60 | 240 | 1.5 | 30 | Ø5 | min (n x R _{lat,k} ; 20/kmod) |
| NP15/60/300 | 21217682 | 5653522 | 60 | 300 | 1.5 | 38 | Ø5 | min (n x R _{lat,k} ; 20/kmod) |
| NP15/60/340 | 21217641 | 5653480 | 60 | 340 | 1.5 | 43 | Ø5 | min (n x R _{lat,k} ; 20/kmod) |
| NP15/60/420 | 21217666 | 5653506 | 60 | 420 | 1.5 | 53 | Ø5 | min (n x R _{lat,k} ; 20/kmod) |
| NP15/60/500 | 21217674 | 5653514 | 60 | 500 | 1.5 | 63 | Ø5 | min (n x R _{lat,k} ; 20/kmod) |
| NP15/80/100 | 21217708 | 5653605 | 80 | 100 | 1.5 | 18 | Ø5 | min (n x R _{lat,k} ; 26.7/kmod) |
| NP15/80/140 | 21593918 | 8977811 | 80 | 140 | 1.5 | 25 | Ø5 | min (n x R _{lat,k} ; 26.7/kmod) |
| NP15/80/180 | 21217955 | 5653530 | 80 | 180 | 1.5 | 32 | Ø5 | min (n x R _{lat,k} ; 26.7/kmod) |
| NP15/80/200 | 41711653 | 1267928 | 80 | 200 | 1.5 | 35 | Ø5 | min (n x R _{lat,k} ; 26.7/kmod) |
| NP15/80/220 | 21218052 | 3779139 | 80 | 220 | 1.5 | 39 | Ø5 | min (n x R _{lat,k} ; 26.7/kmod) |
| NP15/80/240 | 21218060 | 1644095 | 80 | 240 | 1.5 | 42 | Ø5 | min (n x R _{lat,k} ; 26.7/kmod) |
| NP15/80/260 | 43145003 | 1392639 | 80 | 260 | 1.5 | 46 | Ø5 | min (n x R _{lat,k} ; 26.7/kmod) |
| NP15/80/280 | 21217732 | 5653613 | 80 | 280 | 1.5 | 49 | Ø5 | min (n x R _{lat,k} ; 26.7/kmod) |
| NP15/80/300 | 21593926 | 8977829 | 80 | 300 | 1.5 | 53 | Ø5 | min (n x R _{lat,k} ; 26.7/kmod) |
| NP15/80/340 | 21217757 | 5653548 | 80 | 340 | 1.5 | 60 | Ø5 | min (n x R _{lat,k} ; 26.7/kmod) |
| NP15/80/380 | 21217765 | 5653621 | 80 | 380 | 1.5 | 67 | Ø5 | min (n x R _{lat,k} ; 26.7/kmod) |
| NP15/80/420 | 21217773 | 5653639 | 80 | 420 | 1.5 | 74 | Ø5 | min (n x R _{lat,k} ; 26.7/kmod) |
| NP15/80/500 | 21217781 | 2686970 | 80 | 500 | 1.5 | 88 | Ø5 | min (n x R _{lat,k} ; 26.7/kmod) |
| NP15/100/140 | 21217807 | 5653654 | 100 | 140 | 1.5 | 32 | Ø5 | min (n x R _{lat,k} ; 33.4/kmod) |
| NP15/100/180 | 43139664 | 1392235 | 100 | 180 | 1.5 | 41 | Ø5 | min (n x R _{lat,k} ; 33.4/kmod) |
| NP15/100/200 | 41738756 | 1267931 | 100 | 200 | 1.5 | 45 | Ø5 | min (n x R _{lat,k} ; 33.4/kmod) |
| NP15/100/220 | 21218078 | 3779147 | 100 | 220 | 1.5 | 50 | Ø5 | min (n x R _{lat,k} ; 33.4/kmod) |
| NP15/100/240 | 21218086 | 1644103 | 100 | 240 | 1.5 | 54 | Ø5 | min (n x R _{lat,k} ; 33.4/kmod) |
| NP15/100/300 | 21593934 | 8977837 | 100 | 300 | 1.5 | 68 | Ø5 | min (n x R _{lat,k} ; 33.4/kmod) |
| NP15/100/340 | 21217856 | 5653688 | 100 | 340 | 1.5 | 77 | Ø5 | min (n x R _{lat,k} ; 33.4/kmod) |
| NP15/100/380 | 21593942 | 8977845 | 100 | 380 | 1.5 | 86 | Ø5 | min (n x R _{lat,k} ; 40.1/kmod) |
| NP15/120/160 | 21217849 | 5653662 | 120 | 160 | 1.5 | 44 | Ø5 | min (n x R _{lat,k} ; 40.1/kmod) |
| NP15/120/220 | 21218094 | 1644111 | 120 | 220 | 1.5 | 61 | Ø5 | min (n x R _{lat,k} ; 40.1/kmod) |
| NP15/120/240 | 41738760 | 1267992 | 120 | 240 | 1.5 | 66 | Ø5 | min (n x R _{lat,k} ; 40.1/kmod) |

With

n: the number of nails

R_{lat,k} : Shear capacity of the fastener

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Strong-Tie

NP Nail Plate

| References | NOB nr. | Tun / DB nr. | Dimensions and drill holes [mm] | | | Holes | | Characteristic Capacities [kN] |
|--------------|----------|--------------|---------------------------------|-----|-----------|-------|----------|---|
| | | | A | B | Thickness | Qty | Diameter | $R_{1,k}$ |
| NP15/120/260 | 24176091 | 5768967 | 120 | 260 | 1.5 | 72 | Ø5 | min (n x R _{lat,k} ; 40.1/kmod) |
| NP15/120/300 | 41738775 | 1267998 | 120 | 300 | 1.5 | 83 | Ø5 | min (n x R _{lat,k} ; 40.1/kmod) |
| NP15/120/340 | 43139672 | 1392236 | 120 | 340 | 1.5 | 94 | Ø5 | min (n x R _{lat,k} ; 40.1/kmod) |
| NP15/120/380 | 43139698 | 1392237 | 120 | 380 | 1.5 | 105 | Ø5 | min (n x R _{lat,k} ; 40.1/kmod) |
| NP15/140/140 | 43139717 | 1392239 | 140 | 140 | 1.5 | 46 | Ø5 | min (n x R _{lat,k} ; 46.8/kmod) |
| NP15/140/180 | 43139721 | 1392240 | 140 | 180 | 1.5 | 59 | Ø5 | min (n x R _{lat,k} ; 46.8/kmod) |
| NP15/140/200 | 21217880 | 5653704 | 140 | 200 | 1.5 | 65 | Ø5 | min (n x R _{lat,k} ; 46.8/kmod) |
| NP15/140/220 | 43139740 | 1392241 | 140 | 220 | 1.5 | 72 | Ø5 | min (n x R _{lat,k} ; 46.8/kmod) |
| NP15/140/240 | 21593959 | 8977852 | 140 | 240 | 1.5 | 78 | Ø5 | min (n x R _{lat,k} ; 46.8/kmod) |
| NP15/140/260 | 21218003 | 5653738 | 140 | 260 | 1.5 | 85 | Ø5 | min (n x R _{lat,k} ; 46.8/kmod) |
| NP15/140/300 | 21217906 | 5650502 | 140 | 300 | 1.5 | 98 | Ø5 | min (n x R _{lat,k} ; 46.8/kmod) |
| NP15/140/380 | 43139823 | 1392296 | 140 | 380 | 1.5 | 124 | Ø5 | min (n x R _{lat,k} ; 46.8/kmod) |
| NP15/140/420 | 43139838 | 1392298 | 140 | 420 | 1.5 | 137 | Ø5 | min (n x R _{lat,k} ; 46.8/kmod) |
| NP15/160/180 | 21593967 | 8977860 | 160 | 180 | 1.5 | 68 | Ø5 | min (n x R _{lat,k} ; 53.5/kmod) |
| NP15/160/220 | 21217922 | 5653712 | 160 | 220 | 1.5 | 83 | Ø5 | min (n x R _{lat,k} ; 53.5/kmod) |
| NP15/160/240 | 21593975 | 8977878 | 160 | 240 | 1.5 | 90 | Ø5 | min (n x R _{lat,k} ; 53.5/kmod) |
| NP15/160/260 | 21217948 | 1921394 | 160 | 260 | 1.5 | 98 | Ø5 | min (n x R _{lat,k} ; 53.5/kmod) |
| NP15/160/340 | 21218029 | 2686897 | 160 | 340 | 1.5 | 128 | Ø5 | min (n x R _{lat,k} ; 53.5/kmod) |
| NP15/160/380 | 43139842 | 1392300 | 160 | 380 | 1.5 | 143 | Ø5 | min (n x R _{lat,k} ; 53.5/kmod) |
| NP15/160/400 | 41738786 | 1268000 | 160 | 400 | 1.5 | 150 | Ø5 | min (n x R _{lat,k} ; 53.5/kmod) |
| NP15/160/420 | 43139857 | 1392308 | 160 | 420 | 1.5 | 158 | Ø5 | min (n x R _{lat,k} ; 53.5/kmod) |
| NP15/180/180 | 21593983 | 8977886 | 180 | 180 | 1.5 | 77 | Ø5 | min (n x R _{lat,k} ; 60.1/kmod) |
| NP15/180/220 | 21217971 | 5650510 | 180 | 220 | 1.5 | 94 | Ø5 | min (n x R _{lat,k} ; 60.1/kmod) |
| NP15/200/220 | 21217989 | 2686996 | 200 | 220 | 1.5 | 105 | Ø5 | min (n x R _{lat,k} ; 66.8/kmod) |
| NP15/200/260 | 43139876 | 1392310 | 200 | 260 | 1.5 | 124 | Ø5 | min (n x R _{lat,k} ; 66.8/kmod) |
| NP15/220/220 | 43139880 | 1392312 | 220 | 220 | 1.5 | 116 | Ø5 | min (n x R _{lat,k} ; 73.5/kmod) |
| NP15/220/260 | 43139906 | 1392313 | 220 | 260 | 1.5 | 137 | Ø5 | min (n x R _{lat,k} ; 73.5/kmod) |
| NP15/220/300 | 43139925 | 1392315 | 220 | 300 | 1.5 | 158 | Ø5 | min (n x R _{lat,k} ; 73.5/kmod) |
| NP15/240/180 | 43139933 | 1393504 | 240 | 180 | 1.5 | 104 | Ø5 | min (n x R _{lat,k} ; 80.2/kmod) |
| NP15/240/220 | 43141416 | 1392330 | 240 | 220 | 1.5 | 127 | Ø5 | min (n x R _{lat,k} ; 80.2/kmod) |
| NP15/240/260 | 43141904 | 1392331 | 240 | 260 | 1.5 | 150 | Ø5 | min (n x R _{lat,k} ; 80.2/kmod) |
| NP15/240/300 | 43144935 | 1392332 | 240 | 300 | 1.5 | 173 | Ø5 | min (n x R _{lat,k} ; 80.2/kmod) |
| NP15/260/260 | 43144946 | 1392623 | 260 | 260 | 1.5 | 163 | Ø5 | min (n x R _{lat,k} ; 86.9/kmod) |
| NP15/280/220 | 43144965 | 1392627 | 280 | 220 | 1.5 | 149 | Ø5 | min (n x R _{lat,k} ; 93.6/kmod) |
| NP15/280/260 | 43144973 | 1392635 | 280 | 260 | 1.5 | 173 | Ø5 | min (n x R _{lat,k} ; 93.6/kmod) |
| NP15/280/300 | 43144984 | 1392638 | 280 | 300 | 1.5 | 203 | Ø5 | min (n x R _{lat,k} ; 93.6/kmod) |
| NP15/320/140 | 21218011 | 5653746 | 320 | 140 | 1.5 | 109 | Ø5 | min (n x R _{lat,k} ; 106.9/kmod) |
| NP20/40/120 | 21218342 | 3779154 | 40 | 120 | 2 | 9 | Ø5 | min (n x R _{lat,k} ; 17.8/kmod) |
| NP20/40/160 | 21594007 | 8977902 | 40 | 160 | 2 | 12 | Ø5 | min (n x R _{lat,k} ; 17.8/kmod) |
| NP20/40/200 | - | - | 40 | 200 | 2 | 15 | Ø5 | min (n x R _{lat,k} ; 17.8/kmod) |
| NP20/50/200 | 21218359 | 8256240 | 50 | 200 | 2 | 20 | Ø5 | min (n x R _{lat,k} ; 23.8/kmod) |
| NP20/60/140 | 21594023 | 8977910 | 60 | 140 | 2 | 18 | Ø5 | min (n x R _{lat,k} ; 26.7/kmod) |
| NP20/60/160 | - | - | 60 | 160 | 2 | 20 | Ø5 | min (n x R _{lat,k} ; 26.7/kmod) |

With

n: the number of nails

R_{lat,k} : Shear capacity of the fastener

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NP Nail Plate

| References | NOB nr. | Tun / DB nr. | Dimensions and drill holes [mm] | | | Holes | | Characteristic Capacities [kN] |
|--------------|----------|--------------|---------------------------------|-----|-----------|-------|----------|--|
| | | | A | B | Thickness | Qty | Diameter | $R_{1,k}$ |
| NP20/60/200 | 21594114 | 8977928 | 60 | 200 | 2 | 25 | Ø5 | min (n x R _{lat,k} ; 26.7/kmod) |
| NP20/60/240 | 21218367 | 8258154 | 60 | 240 | 2 | 30 | Ø5 | min (n x R _{lat,k} ; 26.7/kmod) |
| NP20/80/160 | - | - | 80 | 160 | 2 | 28 | Ø5 | min (n x R _{lat,k} ; 35.6/kmod) |
| NP20/80/200 | 21594031 | 8977936 | 80 | 200 | 2 | 35 | Ø5 | min (n x R _{lat,k} ; 35.6/kmod) |
| NP20/80/220 | - | - | 80 | 220 | 2 | 39 | Ø5 | min (n x R _{lat,k} ; 35.6/kmod) |
| NP20/80/240 | 21218185 | 5650346 | 80 | 240 | 2 | 42 | Ø5 | min (n x R _{lat,k} ; 35.6/kmod) |
| NP20/80/300 | 21594049 | 8977944 | 80 | 300 | 2 | 53 | Ø5 | min (n x R _{lat,k} ; 35.6/kmod) |
| NP20/100/140 | 21218201 | 7742414 | 100 | 140 | 2 | 32 | Ø5 | min (n x R _{lat,k} ; 44.6/kmod) |
| NP20/100/160 | - | - | 100 | 160 | 2 | 36 | Ø5 | min (n x R _{lat,k} ; 44.6/kmod) |
| NP20/100/200 | 21594056 | 8977951 | 100 | 200 | 2 | 45 | Ø5 | min (n x R _{lat,k} ; 44.6/kmod) |
| NP20/100/240 | 21218227 | 5650429 | 100 | 240 | 2 | 54 | Ø5 | min (n x R _{lat,k} ; 44.6/kmod) |
| NP20/100/260 | 21218235 | 5653779 | 100 | 260 | 2 | 59 | Ø5 | min (n x R _{lat,k} ; 44.6/kmod) |
| NP20/100/300 | 21594064 | 8977969 | 100 | 300 | 2 | 68 | Ø5 | min (n x R _{lat,k} ; 44.6/kmod) |
| NP20/100/400 | 21218250 | 2184331 | 100 | 400 | 2 | 89 | Ø5 | min (n x R _{lat,k} ; 44.6/kmod) |
| NP20/100/500 | 21218268 | 2184349 | 100 | 500 | 2 | 112 | Ø5 | min (n x R _{lat,k} ; 44.6/kmod) |
| NP20/120/160 | - | - | 120 | 160 | 2 | 44 | Ø5 | min (n x R _{lat,k} ; 53.5/kmod) |
| NP20/120/200 | 21218276 | 7742422 | 120 | 200 | 2 | 55 | Ø5 | min (n x R _{lat,k} ; 53.5/kmod) |
| NP20/120/240 | 21594072 | 8977977 | 120 | 240 | 2 | 66 | Ø5 | min (n x R _{lat,k} ; 53.5/kmod) |
| NP20/120/260 | 21218292 | 5653787 | 120 | 260 | 2 | 72 | Ø5 | min (n x R _{lat,k} ; 53.5/kmod) |
| NP20/120/300 | 21594080 | 8977985 | 120 | 300 | 2 | 83 | Ø5 | min (n x R _{lat,k} ; 53.5/kmod) |
| NP20/120/400 | 24176158 | 5018533 | 120 | 400 | 2 | 110 | Ø5 | min (n x R _{lat,k} ; 53.5/kmod) |
| NP20/140/200 | - | - | 140 | 200 | 2 | 65 | Ø5 | min (n x R _{lat,k} ; 62.4/kmod) |
| NP20/140/240 | - | - | 140 | 240 | 2 | 78 | Ø5 | min (n x R _{lat,k} ; 62.4/kmod) |
| NP20/140/400 | 21594098 | 8977993 | 140 | 400 | 2 | 130 | Ø5 | min (n x R _{lat,k} ; 62.4/kmod) |
| NP20/160/300 | 24176141 | 5650130 | 160 | 300 | 2 | 113 | Ø5 | min (n x R _{lat,k} ; 71.3/kmod) |
| NP20/160/400 | 21218326 | 5788246 | 160 | 400 | 2 | 150 | Ø5 | min (n x R _{lat,k} ; 71.3/kmod) |
| NP20/200/300 | 21594106 | 8978009 | 200 | 300 | 2 | 200 | Ø5 | min (n x R _{lat,k} ; 89.1/kmod) |
| NP20/350/40 | 24176166 | 1292251 | 350 | 40 | 2 | 34 | Ø5 | - |
| NP40/120 | - | - | 40 | 120 | 1.5 | 9 | Ø4.1 | min (n x R _{lat,k} ; 14.2) |
| NP80/140 | - | - | 80 | 140 | 1.5 | 25 | Ø4.1 | min (n x R _{lat,k} ; 28.3) |
| NP80/180 | - | - | 80 | 180 | 1.5 | 32 | Ø4.1 | min (n x R _{lat,k} ; 28.3) |
| NP80/200 | - | - | 80 | 200 | 1.5 | 35 | Ø4.1 | min (n x R _{lat,k} ; 28.3) |
| NP80/220 | - | - | 80 | 220 | 1.5 | 39 | Ø4.1 | min (n x R _{lat,k} ; 28.3) |
| NP80/260 | - | - | 80 | 260 | 1.5 | 46 | Ø4.1 | min (n x R _{lat,k} ; 28.3) |
| NP100/140 | - | - | 100 | 140 | 1.5 | 32 | Ø4.1 | min (n x R _{lat,k} ; 35.4) |
| NP100/200 | - | - | 100 | 200 | 1.5 | 45 | Ø4.1 | min (n x R _{lat,k} ; 35.4) |
| NP100/240 | - | - | 100 | 240 | 1.5 | 54 | Ø4.1 | min (n x R _{lat,k} ; 35.4) |
| NP100/300 | - | - | 100 | 300 | 1.5 | 68 | Ø4.1 | min (n x R _{lat,k} ; 35.4) |
| NP140/180 | - | - | 140 | 180 | 1.5 | 59 | Ø4.1 | min (n x R _{lat,k} ; 49.6) |
| NP140/200 | - | - | 140 | 200 | 1.5 | 65 | Ø4.1 | min (n x R _{lat,k} ; 49.6) |
| NP140/260 | - | - | 140 | 260 | 1.5 | 85 | Ø4.1 | min (n x R _{lat,k} ; 49.6) |
| NP160/340 | - | - | 160 | 340 | 1.5 | 128 | Ø4.1 | min (n x R _{lat,k} ; 56.7) |
| NP200/260 | - | - | 200 | 260 | 1.5 | 124 | Ø4.1 | min (n x R _{lat,k} ; 70.8) |

With

n: the number of nails

R_{lat,k} : Shear capacity of the fastener

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| References | NOB nr. | Tun / DB nr. | Dimensions and drill holes [mm] | | | Holes | | Characteristic Capacities [kN] |
|---------------|---------|-----------------|---------------------------------|------|-----------|-------|----------|------------------------------------|
| | | | A | B | Thickness | Qty | Diameter | $R_{1,k}$ |
| NP220/300 | - | - | 220 | 300 | 1.5 | 158 | Ø4.1 | $\min (n \times R_{lat,k} ; 77.9)$ |
| NP20/620/1240 | - | - | 620 | 1240 | 2 | - | Ø5 | - |
| NP25/620/1240 | - | - | 620 | 1240 | 2.5 | - | Ø5 | - |
| NP30/620/1240 | - | - | 620 | 1240 | 3 | - | Ø5 | - |

With

n: the number of nails

$R_{lat,k}$: Shear capacity of the fastener

NP Nail Plate

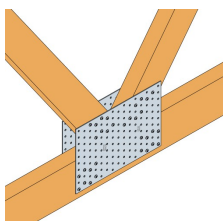
Installation

Fixing

- CNA nails Ø4.0
- CSA screws Ø5.0

Installation

- Use all specified fasteners
- Install using 3.75 x 30mm square twist nails



Attaching wood rafters and square butting rafters.

NP
Nail Plate

